HEAD AND NECK CANCERS (HNC) REMAIN A SIGNIFICANT CAUSE OF MORBIDITY WORLDWIDE. These cancers arise from the oral cavity, pharynx, larynx, salivary glands, nasal cavity and paranasal sinuses. They are characterized by distinct clinical, pathological and molecular features with different predisposing factors (e.g. smoking, viruses), presenting natural histories, and treatment outcomes. Fortunately, HNCs are rare in Canada. However, with more than 850 patients being referred annually to the Princess Margaret Cancer Centre for radiation oncology consultations, the Radiation Medicine Program (RMP) HNC program is one of the largest HNC programs in North America.

While delivering state-of-the-art radiation therapy (RT) and comprehensive care to our patients, the RMP HNC team appreciates the complexities and personal challenges of each patient’s cancer journey. The management of HNC with radiation and concurrent chemotherapy is one of the most challenging treatments any cancer patient can receive as an outpatient. Patients require a tremendous amount of support that can only be provided by a comprehensive multidisciplinary team, comprised of radiation oncologists, medical oncologists, surgical oncologists, physicists, radiation therapists, nurses, dietitians and speech pathologists. Some patients require psychosocial oncology support.

MICHAEL JOHN was diagnosed with oropharyngeal cancer (OPC) and was recommended curative radiation therapy and concurrent chemotherapy at the Princess Margaret. CONTINUED ON PAGE 2.

“...To those who offered ongoing encouraging support and such superb clinical care, I am deeply grateful.”

—MICHAEL JOHN
“Despite our increasing reliance on research and technology, it is the individuals we deal with who actually determine our experience.

As my treatment progressed, I felt that there was a kind of compassionate, professional ‘web’ of support throughout the Princess Margaret.”

—MICHAEL JOHN

With the support of the HNC multidisciplinary team, he is now well on his way to recovery from his treatments. “I was still in shock from my diagnosis when I first met Dr. John Waldron and his team. His calmness and confidence were very reassuring. Nearly four months after starting my treatment, I still have uncomfortable dry mouth, and do not have all my sense of taste back (a big loss for someone who loves to cook!), but I am making progress. I am on the road to recovery.”

Michael’s story highlights the continued need to investigate improvements in cancer care for HNC through innovative research, with a particular emphasis on reducing treatment-related side effects while still maintaining excellent cancer control outcomes. The RMP HNC Program is at the forefront of high-impact transdisciplinary research, spanning from basic science to translational, clinical outcomes and clinical trials research.

A recent focus of the RMP HNC Site Group has been the investigation of treatment de-intensification in a subset of patients with virus-related HNCs, including human papillomavirus (HPV)-associated OPC and Epstein-Barr virus (EBV)-associated nasopharyngeal cancer (NPC) (see Clinical Trials Highlights). In landmark studies recently published in the Journal of Clinical Oncology, RMP investigators, in collaboration with multidisciplinary researchers at the University Health Network, reported pivotal findings elucidating the clinical differences between HPV-related and HPV-unrelated OPC, demonstrating that some HPV-positive OPC patients with a low risk of metastatic disease can be successfully treated with RT alone and spared chemotherapy. These results have provided key data supporting the development of an international multicentre randomized clinical trial (NRG-HN002) evaluating de-intensified therapy for this group of HPV-related OPC patients, which has been launched this year.

The RMP HNC team continues to make great strides towards advancing personalized radiation medicine with improved treatment outcomes and reduced side effects, ultimately to enhance the quality of life for our HNC patients.
Treatment De-Intensification for HPV-Positive Oropharyngeal Cancer  
Local PI – John Waldron  
This randomized study, which has roots in research performed at the Princess Margaret, evaluates reduced intensity treatments for HPV-positive OPC patients. The results may set a new standard for the management of a cancer type with increasing incidence across Canada.  
Eligible Patients: Patients with p16 positive, non-smoking associated, locoregionally advanced OPC who will undergo definitive radiotherapy.  
ClinicalTrials.gov Identifier: NCT02254278

Altered Fractionation Chemo-Radiotherapy with or without Nimorazole for HNC  
Local PI – Meredith Giuliani  
Tumour hypoxia is a major determinant of poor clinical outcome for HNC. This randomized clinical trial evaluates the hypoxic radiosensitizer, nimorazole, in combination with standard chemo-radiation for locally advanced head and neck squamous cell carcinoma that is not HPV-associated.  
Eligible Patients: Patients with p16 negative HNC who will undergo curative chemo-radiotherapy.  
ClinicalTrials.gov Identifier: NCT01880359

Individualized Treatment for NPC based on Biomarker EBV DNA  
Local PI – John Kim  
This randomized study utilizes circulating tumour-derived DNA (ctDNA) to identify nasopharyngeal cancer patients who might be effectively treated with standard, less or newer combination chemotherapy. This is the first clinical application of ctDNA to be tested by cooperative groups.  
Eligible Patients: Patients with EBV-associated NPC who are being treated definitively with chemo-radiation.  
ClinicalTrials.gov Identifier: NCT02135042

THE PRINCESS MARGARET HNC SURVIVORSHIP PROGRAM supports an integrated philosophy of survivorship care for patients, families and caregivers. With few cancer centres offering survivorship resources tailored directly to this specialized patient group, it is the only program worldwide that is directly integrated longitudinally within the hospital’s existing HNC clinic and team.  
Treatment for HNC can be particularly debilitating. Patients experience diverse physical and functional effects from the cancer and its treatment, which can result in social isolation, loss of employment or role functioning, depression and distress. The impact on patients and families is profound.  
The Survivorship Program addresses the needs and complexities across the spectrum of care from diagnosis, treatment to long-term follow up. The focus includes rehabilitation, medical surveillance, monitoring for late effects, risk reduction, symptom control, and psychosocial functioning and support. The majority of patients are supported with interventions related to information, patient education, self-management, community resources and volunteer support. The program may also refer patients to specialist members of the interprofessional team, various supportive and rehabilitation clinics, and/or other community partners and resources.  
The Survivorship Program was recently recognized by Accreditation Canada as a Leading Practice and was commended for its exceptional leadership and extraordinary interdisciplinary efforts of the involved nurses, physicians, scientists, allied health specialists and community partners to deliver high quality service for HNC patients and families.
### 1. Site Group Coordinators
Site group coordinators serve as a liaison for referring physicians, radiation oncologists and the Princess Margaret Patient Referral Centre.

**Palliative Radiation Oncology Program (PROP)**
Direct palliative radiation referral patients to our PROP coordinator. Within 24 hours, she will contact you with an appointment. Patients will be seen within a few days. PROPReferrals@rmp.uhn.ca

**Emergencies**
For patients requiring same day consultations (e.g. spinal cord compression), please contact our Palliative Radiation Oncology referral coordinator (416.946.2901) who will identify the radiation oncologist that is best able to respond to your requests.

**After-Hour Requests**
Please page the radiation oncologist on call through the switchboard at 416.946.2000.

**CONNECTION**
We offer three ways to facilitate your requests for consultation:

#### 2. Princess Margaret New Patient Referral Centre
**Tel:** 416.946.4575  
**Fax:** 416.946.2900

**3. Direct to Specific Radiation Oncologists**
Referrals to specific radiation oncologists should be directed to site group coordinators.

### Site Group Coordinators

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**ConneXions** can be found online at [www.radiationatpm.com](http://www.radiationatpm.com). To comment, suggest future topics or to request an electronic version of ConneXions, please email us at connexions@rmp.uhn.ca.